



# County of Erie

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## HEALTH ADVISORY #306 Increase in Legionellosis Cases in Erie County

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**Please distribute to Healthcare Providers, Hospitals, and Laboratories**

### **SUMMARY**

The Erie County Department of Health (ECDOH) along with the New York State Department of Health (NYSDOH) are currently investigating a significant increase in the number of confirmed legionellosis cases seen in Erie County during the month of June. The number of cases is higher than normal seasonal levels for legionellosis. The majority of cases are in persons over the age of 50 years with clinical and/or radiographic evidence of pneumonia. At this time, there is no epidemiological link among these cases, but the investigation is ongoing. To aid in the epidemiological investigation, the ECDOH asks that a sputum culture for *Legionella* be obtained following a positive urinary antigen test for *Legionella* and forwarded to Wadsworth Center Laboratory.

### **EPIDEMIOLOGY OF LEGIONELLOSIS**

*Legionella* is transmitted via airborne droplets of contaminated water. Aspiration of water may play a significant role in transmission. There is no evidence for person-to-person transmission. Hot water systems (including showers), air conditioning cooling towers, evaporative condensers, humidifiers, whirlpool spas, respiratory devices, and decorative fountains have all been implicated in outbreaks. *L. pneumophila* can survive in tap and distilled water for months.

The incidence of legionellosis typically increases during the summer months. Approximately 80% of cases are sporadic. *L. pneumophila* causes 2 distinct clinical diseases: *Legionella* pneumonia and Pontiac fever. The symptoms of the two diseases are similar, but patients with Pontiac fever do not develop pneumonia.

Symptoms of legionellosis include fever, non-productive cough, anorexia, malaise, myalgia, headache, and/or diarrhea. Patients with *Legionella* pneumonia have clinical and/or radiographic evidence of a pulmonary infiltrate. The incubation period is 2-14 days. Illness typically occurs in adults. Persons with underlying respiratory and/or immunosuppressive conditions (particularly transplant patients) are at greater risk of illness. Disease is often severe, frequently requiring hospitalization; reported case fatality rate varies from 5 to 40%.

### **LABORATORY CONFIRMATION**

Urinary antigen assay **AND** culture of respiratory secretions on selective media are the preferred diagnostic tests for Legionnaires' disease. Isolation of *Legionella* from respiratory secretions, lung tissue, pleural fluid, or a normally sterile site is still an important method for diagnosis, despite the convenience and specificity of urinary antigen testing. For more information on testing please refer to the CDC guidance: <http://www.cdc.gov/legionella/clinicians.html>

## **TREATMENT RECOMMENDATIONS**

Azithromycin or respiratory fluoroquinolones constitute first line treatment. Levofloxacin is the drug of choice for immunocompromized patients. Doxycycline and TMP-SMX are secondary choices.

## **RECOMMENDATIONS**

The ECDOH asks that a sputum culture for *Legionella* be obtained following a positive urinary antigen test for *Legionella pneumophila* serogroup 1. Isolation of the organism from a patient is of special importance in epidemiological investigations as it allows the fingerprinting of the organism in comparison with a possible environmental source. A sputum culture for *Legionella* should be collected preferably **prior to** antibiotic administration. The ECDOH and NYSDOH ask that all sputum cultures, even if tested negative for *Legionella* by the initial laboratory, be forwarded to the NYSDOH Wadsworth Center Laboratory for testing and possible pulsed-field gel electrophoresis (PFGE).

All suspect and confirmed cases of legionellosis should be immediately reported to the Erie County Department of Health at (716) 858-7697.

## **ADDITIONAL INFORMATION**

For additional information on legionellosis, please visit:

[http://www.health.ny.gov/diseases/communicable/legionellosis/fact\\_sheet.htm](http://www.health.ny.gov/diseases/communicable/legionellosis/fact_sheet.htm)

<http://www.cdc.gov/legionella/index.html>

The ECDOH Health Alert & Advisory System is an e-mail notification system designed to alert community partners about important health related information. You can sign up to receive alerts & advisories at <http://www2.erie.gov/health/index.php?q=node/59>.

### **Health Category Definitions:**

**Health Alert FLASH:** conveys the highest level of importance due to a large-scale, catastrophic public health emergency; warrants immediate action or attention

**Health Alert Priority:** conveys the highest level of importance; warrants immediate action or attention to a health problem or situation

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action

**Health Update:** provides updated information regarding an incident or situation; no immediate action necessary

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